

I claim:

*Sub.a'*

1. An improved controller of the type held in two hands simultaneously for controlling electronic imagery, said controller including a housing, a plurality of 5 depressible surfaces at least in-part exposed on said housing with the deppressible surfaces acting on electricity manipulating devices contained within said housing and controlled by depression of said deppressible surfaces for manipulating electrical outputs at least 10 useful for controlling electronic imagery; wherein the improvement comprises;
  - at least one of said electricity manipulating devices is a pressure-sensitive variable-conductance sensor for creating an analog electrical output proportional to 15 varying physical pressure applied to at least one deppressible surface of the plurality of deppressible surfaces;
  - means for outputting to an image generation machine a signal at least representational of said analog electrical 20 output, whereby a user of said controller may be provided proportional control of action intensity of electronic imagery.

- Sub.B'*
2. An improved controller in accordance with claim 1 wherein the controller has only a single said housing, 25 said housing structured to be held by two hands simultaneously.

*Sub.a<sup>2</sup>*

3. An improved controller in accordance with claim 2 wherein at least four of said electricity manipulating devices are pressure-sensitive variable-conductance 30 sensors for creating said analog electrical output proportional to varying physical pressure applied to at least four of said deppressible surfaces of said plurality of deppressible surfaces.

Sub. B5>

4. An improved controller in accordance with claim 3 wherein said at least four of said depressible surfaces comprises a four-way rocker having four codependant areas with each one of said areas positioned over one each of 5 said four electricity manipulating devices, one said area per one said electricity manipulating device.

Sub. a3>

5. A game controller structured to be held by a user in two hands simultaneously, said controller comprising:  
a housing;  
10 a plurality of depressible surfaces exposed on said housing and depressible by digits of the user's hands to operate  
electricity manipulating devices contained within said housing and operated for manipulating electrical  
15 outputs of said electricity manipulating devices by depression of said depressible surfaces; at least one of said electricity manipulating devices including means for creating an analog electrical output proportional to varying physical pressure applied by at  
20 least one depressible surface of the plurality of depressible surfaces;  
means for outputting to an image generation machine a signal at least representational of said analog electrical output, whereby a user of said controller may be provided  
25 proportional control of action intensity of electronic imagery.

Sub. B7>

6. A game controller in accordance with claim 5 wherein the controller has only a single said housing, said housing structured to be held by two hands  
30 simultaneously.

Sub. a4>

7. A game controller in accordance with claim 6 including at least four of said electricity manipulating devices including means for creating said analog

electrical output proportional to varying physical pressure applied to at least four of said depressible surfaces of said plurality of depressible surfaces.

*Sub. B9>* 8. A game controller in accordance with claim 7

5 wherein said at least four of said depressible surfaces comprises a four-way rocker having four codependant areas with each one of said areas positioned over one each of said four electricity manipulating devices, one said area per one said electricity manipulating device.

*10 Sub. a5> 9. A game controller comprising*

a housing to be grasped and held simultaneously by two hands of a human user with thumbs of the grasping hands remaining free of grasping responsibilities; said housing including a right-hand area and a left-hand area,  
15 said right-hand area being an area for grasping by the user's right hand, said left-hand area being an area for grasping by the user's left hand;

a plurality of depressible surfaces each at least in-part exposed on said housing in at least one said area,  
20 said plurality of depressible surfaces positioned on said housing to be within reach of the user's thumb with the user's hand grasping said housing in said at least one said area;

a plurality of electricity manipulating devices each  
25 individually operatively associated with a single depressible surface of said plurality of depressible surfaces, one of the electricity manipulating devices per each one of the depressible surfaces; each of the electricity manipulating devices contained at least in-part within said housing and capable of electrical output manipulation upon physically applied depressive pressure of its associated depressible surface of said plurality of depressible surfaces;

at least one said electricity manipulating device

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including means for creating an analog electrical output proportional to varying applied physical pressure;

5 means for outputting to an image generation machine a signal at least representational of said analog electrical output, whereby a user of said controller may be provided proportional control of action intensity of electronic imagery.

10. A game controller in accordance with claim 9 including at least four of said electricity manipulating devices including means for creating said analog electrical output proportional to varying physical pressure applied by at least four of said depressible surfaces of said plurality of depressible surfaces.

Sub. B11> 11. A game controller in accordance with claim 10 wherein said at least four of said depressible surfaces comprises a four-way rocker having four codependant areas with each one of said areas positioned over one each of said four electricity manipulating devices, one said area per one said electricity manipulating device.

20 12. An improved method of using a game controller of the type structured to be held by a user in two hands simultaneously, the controller connected to an image generation machine connected to a visual display, in which a user's hand digits depress surfaces upon a housing of the controller to manipulate imagery on the display, wherein the improvement includes;

25 depressing at least one of said surfaces with varying degrees of pressure to manipulate imagery in proportion to the degree of depressive pressure.

30 13. An improved method in accordance with claim 12 further including  
grasping said housing in each of two hands

simultaneously when depressing at least one of said surfaces.

- Sub. A(b) > 14. An improved method of controlling action intensity of imagery within a visual display of the type 5 allowing user manipulation of action of imagery within the visual display by way of depressing a depressible surface onto a pressure-sensitive variable-conductance sensor connected to electronics within a housing of a two-hand held controller linked to an image generation machine 10 which in turn is linked to the display; wherein the improvement includes the step depressing said depressible surface with varying degrees of pressure to vary conductance of said pressure-sensitive variable-conductance sensor for varying the 15 action intensity of the imagery proportional to the degree of depressive pressure.

15. An improved method in accordance with claim 14 further including  
grasping said housing in each of two hands  
20 simultaneously when depressing at least one of said depressible surfaces.

16. An improved method of manufacturing a two-hand held type controller manufactured by way of assembling into a housing a circuit board including circuitry formed 25 to be at least in-part a component of electricity manipulating devices and applying single digit depressible surfaces in-part exposed on said housing and positioned to be depressed onto said electricity manipulating devices, wherein the improvement comprises;  
30 installing into said controller at least one pressure-sensitive variable-conductance sensor for creating an analog electrical output in proportion to pressure applied to at least one of said depressible

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surfaces;

- installing into said controller means for outputting to an image generation machine a signal at least representational of said analog electrical output for 5 providing a user of the controller proportional control of action intensity of electronic imagery.

17. An improved method of manufacturing a two-hand held type controller in accordance with claim 16 further including forming said housing into a single structure 10 suitable for being held by two hands of a user simultaneously.

- Sub. A7> 18. An improved method of manufacturing a two-hand held type controller in accordance with claim 17 further including installing into said controller said at least 15 one pressure-sensitive variable-conductance sensor of a type having a wide variable resistance range as a function of depressive pressure.

19. An improved method of manufacturing a two-hand held type controller in accordance with claim 18 further 20 including installing into said controller said at least one pressure-sensitive variable-conductance sensor of a type having an active material of tungsten carbide within an elastic binder.

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